

Remarks

We amended claim 26 to place it, as well as pending claims 27-60, in condition for allowance. We have removed the negative limitation language "uncoated" from claims 26, 29, 30, 43, 48 and 54, considered by the Examiner to be objectionable under §112, first paragraph, and inserted positive limitation language in claim 26 that requires the combination of the metal chlorite and acid forming component be a "direct mixture" as supported in the examples described in the specification (Example 1, page 26, line 23 to page 27, line 2; Example 2, page 27, line 25 to page 28, line 2; Example 3, page 28, lines 19-24; Example 4, page 29, lines 4-9; Example 5, page 29, lines 16-20; Example 6, page 30, lines 5-9; and Example 7, page 30, lines 14-22). Importantly, the adequacy of the examples as support for this positive limitation was recognized in the outstanding Office action: "in these examples, the metal chlorite is *mixed directly* (i.e., without coating) with the acid forming component" (emphasis added; see page 2 of the Office action mailed 6/24/03).

We have added new claim 61 which defines a device containing a mixture consisting essentially of at least one metal chlorite and at least one acid forming component. Support is found in claim 26, and the examples described in the specification (see Example 1, page 26, line 23 to page 27, line 2; Example 2, page 27, line 25 to page 28, line 2; Example 3, page 28, lines 19-24; Example 4, page 29, lines 4-9; Example 5, page 29, lines 16-20; Example 6, page 30, lines 5-9; and Example 7, page 30, lines 14-22).

We respectfully submit that the claims, as amended, define an invention that is novel and non-obvious over the cited references. Claims 26-60 have been rejected as obvious over CN 1,104,610 (CN '610), an English translation of which is enclosed. CN '610 teaches a mixture of sodium chlorite microcapsules with tartaric or oxalic acid particles in a cloth bag. Unlike the present invention, which requires a direct mixture of the metal chlorite and acid forming component, the components in CN '610 are not mixed directly. Instead, CN '610 requires the encapsulation of sodium chlorite to inhibit reaction of the sodium chlorite with the acid particles (see the English translation of CN '610, page 4, lines 2-4). There is no incentive in CN '610 to directly mix a metal chlorite and a acid forming component as required in amended claims 26-60.

Claims 26-60 have been rejected as obvious over a hypothetical combination of EP 0 581 550 with CN '610. We respectfully submit that required incentive for such a combination is absent from the prior art. The use of a cloth bag in CN '610 is associated with an encapsulated sodium chlorite – the cloth bag creates a “micro-reactive environment” when placed in water (page 4, line 6 of the English translation of CN '610), while the encapsulation of the sodium chlorite prevents premature reaction with the solid acidifier (page 4, lines 2-4 of the English translation of CN '610). As the chlorite of EP '550 has no protective coating, one of ordinary skill in the art would quickly recognize that the EP '550 composition in a cloth bag of CN '610 would be susceptible to premature reaction of the components due to moisture in the atmosphere. Indeed, EP '550 emphasizes that “there can be situations in which the humidity of the ambient air may be sufficient to release chlorine dioxide from the solid composition” (page 3, lines 57-58). Recognizing that the EP '550 would have no protection from premature reaction in the cloth bag of CN '610, one of ordinary skill in the art would have strong incentive to *not* substitute the EP '550 non-encapsulated chlorite/acid composition for the encapsulated chlorite composition/acid composition of CN '610.

Claims 26-60 have been rejected as obvious over a hypothetical combination of EP 0 581 550 with CA 959,238 (CA '238). CA '238 teaches that “the chlorite and the acid are each *separately* wrapped or packed in a water soluble envelope or container” (page 4, lines 4-6). Clearly, CA '238 is teaching a method for inhibiting chlorite/acid reaction similar to CN '610, except 1) CA '238 encapsulates the acid in addition to the chlorite, and 2) CA '238 fails to disclose the use of a woven cloth bag as a means for holding the reactants as liquid water is introduced. Applicants' invention defined in claims 26-60 requires direct mixture of a metal chlorite and acid forming component in a water-permeable membrane. Accordingly, even if CA '238 were hypothetically combined with EP '550, the direct mixture of reactants in a water-permeable membrane is neither taught nor suggested.

In light of the foregoing, we respectfully submit that the claims, as amended, define a novel and non-obvious invention that fully merits patent protection. Accordingly, we respectfully request that the entire application be allowed at an early date.

This response is being filed after three months but before four months after the July 1, 2004 mailing date of the outstanding Office action. Authorization to charge the fee required for a

one-month extension for response, as well as any other fee deemed to be required, to deposit
Account No. 05-1070 is hereby granted.

Respectfully submitted,



Russell G. Lindenfeldar
Reg. No. 39,750

ENGELHARD CORPORATION
101 Wood Avenue
PO Box 770
Iselin, NJ 08830
Tel. 732-205-7125